is natural; here, likewise, there is no trace of a lower limb. The cuticle covers the acetabulæ smoothly, save a nipple-like projection in the centre.

The child was born in New Mexico, of American parents; is now sixteen months old; sprightly, active, and intelligent; has generally had good health. The mother is an educated and refined woman, as much attached to and interested in her offspring as if it were perfect in form.

Saint Louis, Mo., *June* 10, 1856.

Experimental Physiology. By David R. Walton, M. D.—Among the interesting lectures on Medical Science in Paris, none are pursued with more zeal and success than the several courses of Experimental Physiology.

M. Coste, at the College of France; M. Claude Bernard, at the same Institution, and at the Sorbonne; M. Flourens, at the Garden of Plants; MM. Wurtz and Verneuil, at l'Ecole College de Médecine; M. Brown-Séquard, M. Béclard, and M. Martin-Magron, at l'Ecole Pratique; M. Charles Robin, and others in private courses, each pursuing specialties, and all contributing to the discovery of elementary truths, are harmoniously developing the science of Physiology.

A circumstance which promises the most valuable results is the surrender of preconceived theories opposed by legitimate experimentation; the unanimous pursuit of facts as individualities, and a natural arrangement of analogical facts; thus establishing doctrines and practice as *spontaneous necessities*—*i. e.*, doctrines flowing from demonstrated facts. This characteristic may be easily illustrated by stating what passed this day before the pupils of M. Brown-Séquard, late Professor of the Institutes of Medicine and of Medical Jurisprudence in the Medical College of Virginia. Transfusion of blood formed the subject of experimentation in his regular course this day. The Professor first showed a dog, into the jugular vein of which had been, the day before, injected a mixture of blood drawn from two pigeons and a rabbit. The good state of this animal, in which circulated the blood of distant species, formed a contrast with the results obtained in the experiments reported, and the doctrines maintained by MM. Prevost and Dumas, who say the blood of a bird is poison if introduced into the vein of a mammal, and who maintain the incompatibility of the blood of different species. The following experiments show the grounds of error in said doctrine; and at the same time are suggestive of the true method of transfusion necessitated by dangerous hemorrhage.

It will be seen that it is the state or condition of the injected blood, rather than the species of animal from which it is derived, that determines its poisonous effects.

M. Brown-Séquard commenced by injecting into the veins of animals their own blood in different states. First experiment: blood was drawn from the right carotid of a dog, and as it flowed it was beaten by a feather brush to separate the fibrin and to oxygenate the liquid. A portion of this aerated blood was injected into the jugular vein of the same animal. At the expiration of an hour, more blood was taken from the dog, defibrinated and injected as before. This series was repeated eight times in six hours. The third abstraction was nearly devoid of fibrin, and the last five appeared to be destitute of any; but it was only when the blood had lost its power of being aerated, and when the black blood was injected, that fatal convulsions occurred.

In some animals blood was drawn from arteries, and in others from veins, and beaten from the commencement of the flowing till the same was injected into the veins of animals from which it had been drawn, or of animals of a different species. The injection of this aerated blood was not followed with fatal consequences, except in two instances, when it was found that air had entered the veins, and had been, as was supposed, the cause of death.

Finally, experiments were made by injecting into animals their own blood unoxygenated, which had been suffered to remain a few moments deprived of the contact of air, after it had been defibrinated; that is, the blood was first defibrinated, then placed in the syringe, and thus secluded from the air till its oxygen had combined with its carbon, and formed carbonic acid, rendering it black. This carbonated injection invariably produced convulsions and speedy death.

It is to be presumed that the doctrines of MM. Prevost and Dumas, concerning the transfusion of blood of different species, are formed from experiments made without due attention to aeration of the injected fluid. It is probable, also, that the general prejudice against transfusion of human blood as a remedy in case of dangerous hemorrhage, has arisen in part from the neglect of this oxydation, which all experiments prove absolutely necessary. It may be that in some cases too large a quantity has been transfused. It is found that the injection of blood equal to one-tenth the quantity lost is the standard proportion required.

Full details of these experiments will be given in a work composed of comparative and analogous cases by the several experimenters of Paris.

Paris, Feb. 15, 1856.

DOMESTIC SUMMARY.

Case of Erythema Tuberculatum et Œdematosum.—Dr. Silas Durkee records (*Boston Medical and Surgical Journal,* April 10, 1856) a case of this rare disease. The subject of it was a woman, 47 years of age, born of healthy parents, married at the age of 19, and the mother of six children. She was of medium size, dark complexion, black hair and eyes, of good moral character. She first consulted Dr. D. in July, 1855. There was then one tubercle situated on the inside of the left leg, midway between the knee and ankle. It was one inch in diameter at the base, and elevated one-third of an inch above the surrounding skin. It was of a deep-red colour, was perfectly round, and slightly elastic to the touch. It was not painful. It began to show itself in the month of March previous, making about four months before Dr. D. saw it. There were from eight to ten papulæ irregularly distributed in the immediate neighbourhood, and varying in size from mere dots to a pin's head; and two or three small tubercles, of the bigness of a split pea, near the inner malleolus. The appearance of the papules and the tubercle corresponded with the description and plate under the head of "Erythema Papulatum et Tuberculatum," in the *Illustrations of Cutaneous Diseases,* by Robert Willis, London, 1841.

"The leg and foot were somewhat swollen and œdematous. The general health was impaired. The woman had a poor appetite; looked thin and pale; and complained of severe constipation and debility. Pulse 65, and feeble.

"She stated that on the 4th of March, 1853, her right thigh was amputated in consequence of a disease on the right leg like that which occupied the left leg at the time I saw her in July. Both legs and feet had been more or less swollen, especially in warm weather, for six or seven years previously to the amputation. The tubercles on the right leg had existed eight months before the surgical operation was performed. They were fused together in one large mass, according to the patient's statement, and covered a portion of integument on the middle of the leg nearly as large as her hand. She had a favourable